

# SDI Plummer Block Housings

The innovation of SD housings



**HFB – Technology in motion.**



# SDI Plummer Block Housings – Efficient & Economical



The new SDI plummer block housings of HFB are the consequent further development of the SD housings proven for decades and are particularly suitable for the use of extreme load bearings.

HFB manufactures SDI plummer block housings according to highest quality expectations. Such housings are characterised by a robust construction and high level of efficiency. They meet the continuously increasing demands of different industries in a special way.

## The innovative design of SDI housings

- The combination of optimised materials with improved housing structure results in a higher level of stiffness tolerating higher loads. Therefore, the new housings meet the continuously increasing demands, reduce possible deformation of housings and bearings and extend the life of the bearing.
- The optimised force application in the installation surface as well as the improved heat removal base on the constructional redesign and the resulting enhanced geometry of the housing base. Therefore, low operating temperatures increase the lifetime of the bearings and seals as well as the working life of grease.
- Easy to install markings of the bearings and the centre of the housing facilitate on-site assembly. Precise positioning of the bearing reduces vibrations and therefore prevents high heat generation with the effect of extended life of bearing and grease.
- For the realisation of an application-related distribution of grease, the new housings are equipped with marks for centre for the sealing area as well as an application-oriented bearing lubrication. Oil lubrication can be realised as well on request. Additional bags allow a connection of both bearing sides which guarantees a uniform oil level. An optional oil sight gauge prevents over-filling.
- Vibrations and temperature sensors also can be easily installed at a later time due to the new marks for centre.
- A pinhole at the housing foot (also on both sides) at the marked spot can be additionally ordered or bored during assembly. This is for the exact positioning by means of a pin arranged during assembly and the force absorption in clamping surface directions.
- An additional modification of the housings permits the mounting of heating elements.



# For Global Demanding Applications

SDI plummer block housings are predestined for the use under high loads due to the high stability and the resulting high level of safety.

## Typical fields of operation are among other things:

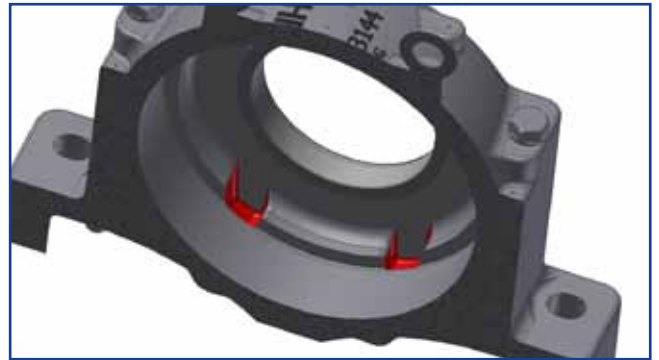
- Conveying technology
- Materials handling
- Mining industry
- Recycling technology



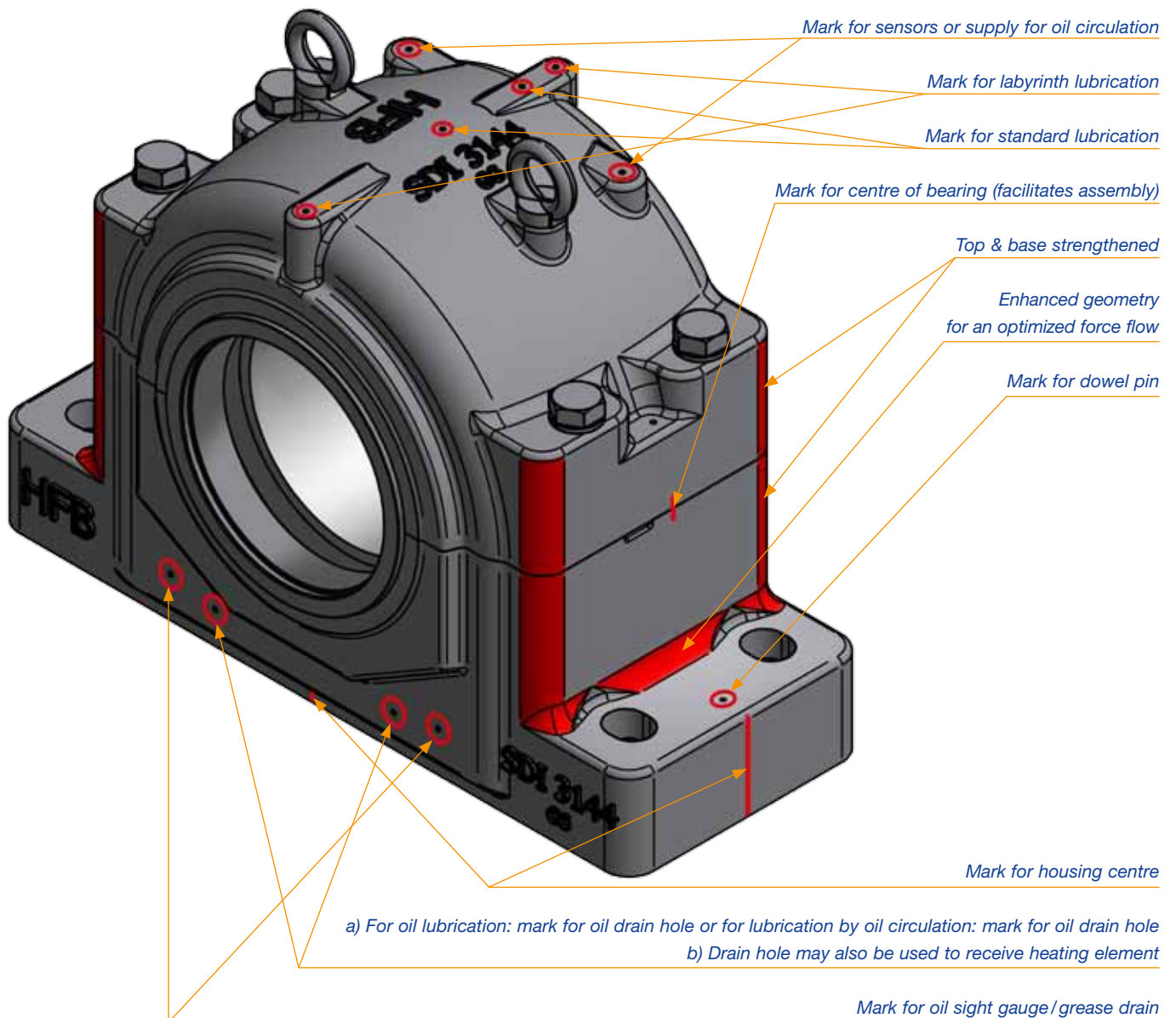
# SDI Features and Product Innovations



Revised, enhanced geometry inside the foot



Additional bags allow a connection of both bearing sides with oil lubrication

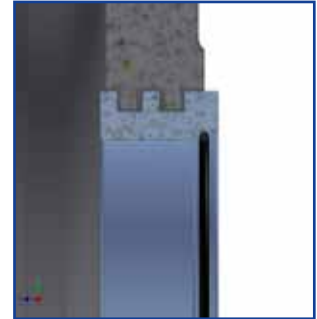


# The Best Seal for Each Application

HFB offers suitable seals for various applications. According to the requirements concerning the bearings, a seal has to be selected that guarantees the proper function of the bearing and optimises the working life of the bearing. All seals have one thing in common: They retain the grease in the bearing and prevent the penetration of impurities into the bearing.

## TS Seals

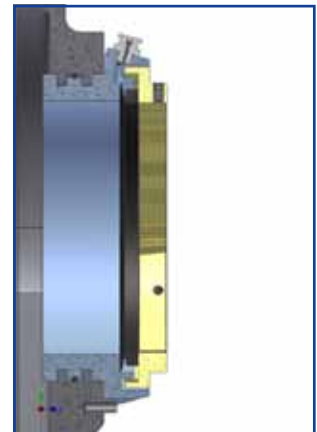
The TS seal (non-contact labyrinth seal) is the most common seal of HFB and universally usable. Included Perbunan round cords are inserted between shaft and labyrinth ring and make sure that the rings are rotating with the shaft. Tilting of the shaft against the housing are permitted up to 0.3°. In the event of permanent temperatures exceeding 100 °C, a round cord made of a suitable, heat-resistant material must be inserted. When relubricating, it should be lubricated over the bearing centre, if possible. Optionally, bore holes for direct labyrinth lubrication can be provided.



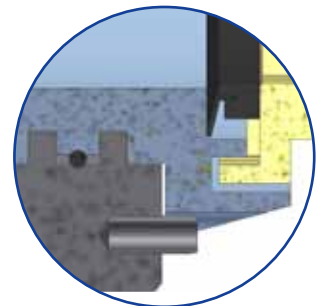
TS Seal

## TACONITE Seals

The TACONITE seal (TAC) is the most effective sealing against water, sludge and rough impurities. It was designed for application fields with extremely rough operating conditions like e.g. mining operations and stone machining. In addition, it keeps away finest particles from the spherical roller bearing. A stationary ring is mounted in the housing with an O-ring. An axial labyrinth ring mounted on the shaft engages with it. A V-ring sealing against the stationary ring prevents the penetration of dirt into the housing. Lubrication of the seal takes place via lubricating nipples in the stationary seal ring. This seal is usable in the HFB standard housings without any additional modification. Axial tilting of the shaft is possible up to 0.3°. Working temperatures of -40 °C to +100 °C are permissible. In addition, special materials have to be chosen for the O-ring and V-ring. The axial relocatability of the shaft against the housing is restricted with the TACONITE seal. Our seals are manufactured for the use of a torsional reliability against the housing by default. On client's request, HFB can modify the housings accordingly (suffix VDS).



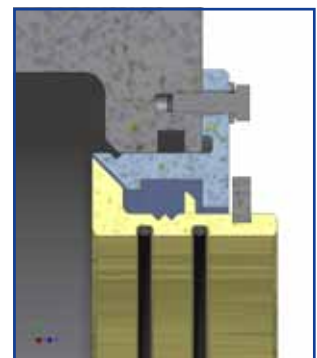
TAC VDS Seal



TS and TACONITE seals are also available in split execution.

## TST Oil seals

The use of oil lubrication requires special seals. Such must prevent oil leakage. The TST oil seal – a non-contact labyrinth seal – is ideally suitable. The labyrinth ring is locked on the shaft by means of inserted O-rings. Such prevent leakage between shaft and labyrinth ring. In addition, the seal is designed to return oil. Such seals do not restrict the axial movement of the shaft against the housing. The shafts are usually manufactured with the tolerance h9. In order to mount a TST oil seal, the SDI housings require special processing.

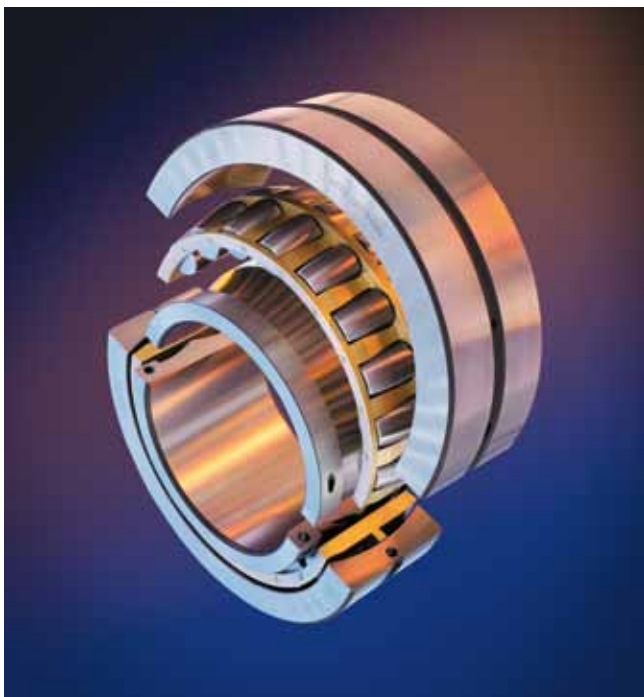


TST Oil seal

# Extensive Product Range

## Following types of bearings can be used with SDI Plummer Block Housings:

- Spherical roller bearing, series 230, 231, 232, 222, 223 and 240 with cylindrical boring and adapter mounted
- Split spherical roller bearings, series SPLT (details on request)



## Delivery programme SDI Plummer Block Housings

- SDI 3036 to SDI 30/530
- SDI 3134 to SDI 3196
- SDI 3234 to SDI 3288
- SDI 2232 to SDI 2272
- SDI 2326 to SDI 2356
- SDI 4076 to SDI 40/530

## Materials

Both alternative materials are available for the SDI housings: Grey cast iron and spheroidal graphite iron.

Spheroidal graphite iron of HFB impresses by its significant features and is frequently suitable as a replacement for steel casting therefore.

## Advantages of spheroidal graphite iron

- Defined notched bar impact work at -20 °C according to standard
- Increased operational safety under extreme conditions
- Improved elongation at break
- Resistant to impact load



## Sales companies

### HFB

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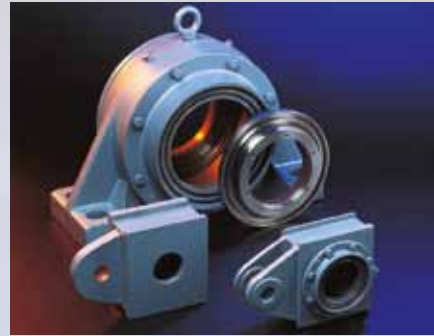
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### TMK

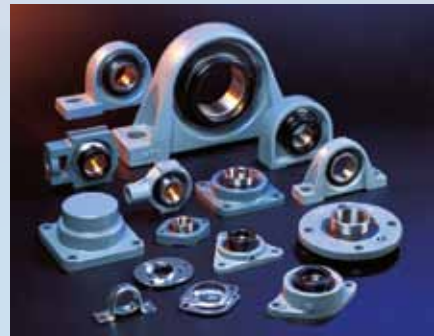
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## Extract of HFB's product range



*Plummer block and take-up units for conveyor systems of all sizes*



*Ball bearing housing units for shaft diameters 12-120 mm*



*Oil and grease lubricated housings for fan and air-conditioning industry*



*Split plummer block housings made from grey cast iron, ductile iron and cast steel*



*Grease lubricated plain bearings with bronze bushes*



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